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## URBAN AGRICULTURE, FOOD PRODUCTION AND CITY PLANNING IN A MEDIUM SIZED CITY OF TURIN METROPOLITAN AREA: A PRELIMINARY NOTE WHICH COMPARES GEOGRAPHY AND LOCAL POLICIES

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*Keyword: urban agriculture, food supply, local development, planning, institutions*

*Abstract: This research is stated on a main question: do urban and periurban agriculture be considered a valuable source for food supply, environmental, economic and social development in a medium sized city? This question has been addressed considering urban agriculture management in the planning policies of Nichelino, a 48.000 inhabitants city in the Turin Metropolitan area.*

*The results addressed the issue of urban and periurban agriculture considering their spatial distribution and relationships with citizens and users in their environmental, economic and social implications.*

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### 1. Nichelino urban area, framework overview.

Nichelino is a 48,000 inhabitants city (2011 census) spread over an area of 20.6 square kilometers south of the Turin metropolitan area.



Figure 1. Torino and his metropolitan area . Source : web torinostrategica  
<http://www.torinostrategica.it/territori/>

The proximity to the factory called "Mirafiori" one of the main industrial areas of production of FIAT, is one of the reasons why the city has undergone a rapid process of urbanization between 1961 (population 10,000 inhabitants) and 1971 (40,000) up to the 48.000 inhabitants today.

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The city has a high density residential housing area, a more spread rural area and a large park around one of the main Savoy residences: the *Castello di Stupinigi* that is a national historical heritage and a local landscape landmark.

The urban area, for mostly flat, is crossed in the north by the river Sangone and, inside its borders, by the railroad network and the Turin highway ring road. The city has experienced over the past ten years the economic crisis due to the industry lack of production and job, as evidenced by the data of the population employed in the industrial sector that fall down from 9.207 employees (19% of employed population) in 2001 to 5.950 employees (12 % of employed population) to date. A similar pattern occurs if we consider commercial and service sector employees that fell from 11.131 (2001) to 7.500 to date. If we consider the agricultural sector, however, the pattern remains stable and occupies only 1.3% of the population. This is a low figure when compared with the large extension of agricultural area in total 95.5% of the city surface and fully exploited<sup>2</sup>.

In the following paragraphs we try to understand how it is organized the rural area within the city, its resources and potential of economic, environmental and social opportunities, considering the role of urban and regional planning.

## 2. The Green city

Urban geography consists of a high residential density area that comes close to the river and the regional park. This geographical framework affected local urban policies regarding the *green city*.

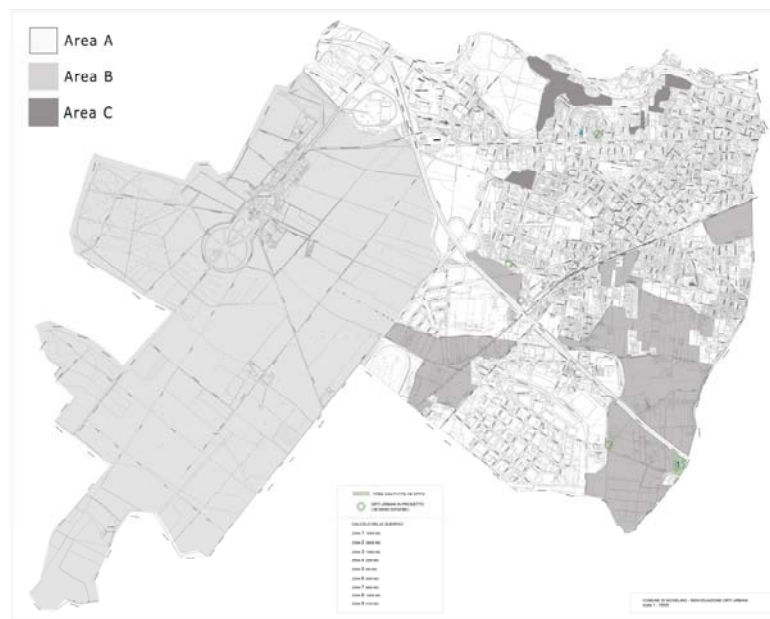
Contextually to the Nichelino's case study, *green city* is used here to show urban, peri-urban agriculture, agriculture inside the park, agriculture outside the urbanized area. It may be helpful to clarify meanings and content of each of these categories. Urban agriculture is here stated as the presence of gardens areas inside the residential urban area. These gardens, located along the river at the north of the city (Area C in Figure 2) are nevertheless an integral part of urban planning being regulated by the appropriate authorizations allowed by the municipality to the citizens users. The peri-urban agriculture, instead, refers to areas in which there are forms of agricultural production spread on more extensive land, whether they are localized within the city or at the edge of it (Area B in Figure 2). These areas can be both private and public property, with a food production large enough to be marketed. Agriculture inside the park, refers to farms located into the park (Area A in Figure 2). Agriculture external to the urbanized area refers to farms in the city administrative boundaries but within the predominantly rural landscape. If we consider the geographical distribution of these three forms of agriculture it comes out a well defined pattern and specific urban policies.

The Urban agriculture consists mainly of urban gardens whose surfaces have been identified in the Urban Plan mainly along the coastal strip of the river Sangone. This choice is based on both the availability of open spaces in this area (which over the years have not been built for geomorphologic reasons), the proximity to the river and the ease of access for users as very close to the urbanized area. These areas have surfaces of an average about 4000 square meters. and granted by the city to individuals with specific public tenders. It is appropriate to point out one of this area particularly important both for its size, with its 30.000 square meters it is much more extensive than average, but also because – as a private property - it markets its products by selling them directly to consumers.

The peri-urban agriculture is instead located in the south eastern end of the city where there are private activities of agricultural production.

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<sup>2</sup> Data refers to national census of 2001 and 2011 and to the updates of the Italian Institute of Statistics (ISTAT). Source : [www.istat.it](http://www.istat.it)



**Figure 2. Nichelino urban area and its rural surfaces . Source : City of Nichelino, data processed by the author**

The Agriculture inside the Stupinigi Park, refers to historical farms located within the Park of Stupinigi, which are more than 60 distributed among the three cities that are covered by the area of the Park<sup>3</sup>. The city of Nichelino has 10 of these farms which 4 are particularly significant due to their spatial extension, and others are located close to the historical building. We are in the presence of farms with surfaces rather extended from 30 to 160 hectares. The farms in the Park and in the areas closest to the city are largely cereal culture with two exceptions: a livestock enterprise that for several years has initiated direct sales system of the product (and therefore direct link production consumption within ); and a farm that for many years has started commercial and tourist hospitality with differentiated production of honey corn etc.

### 3. Local policies for urban and peri-urban agriculture

The local urban policies identify three main topics:

1. Farms and resources of the *Stupinigi* Park.
2. Peri Urban Agriculture. It considers the farms located in south east of the populated area for the production of fruit and vegetable
3. Urban agriculture located along the river Sangone.

The complex of *Stupinigi* is considered in relation to its historical, cultural and artistic features. Planning policies promoting accessibility, through the improvement of internal routes to the park, the restoration of trails and bike paths and the support of tourist attractions that can become a potential reference also to enhance existing rural activities.

The weak point of this operation is that *Stupinigi* is out of the main tourist circuits. A policy to address this deficiency considers *Stupinigi* in network with the *Venaria* complex (another important

<sup>3</sup> Besides the city of Nichelino, the *Stupinigi* park extends also over the boundaries of the cities of Orbassano (23.000 inhabitants) and Candiolo (5.600 inhabitants).

former Royal residence and historical heritage in the Torino metropolitan area) that, newly refurbished, has become an important tourist attraction. This policy, however, needs two local planning operations, the support to the system of territorial links (especially transports) between the two tourist centers and the building of an adequate logistics area that has been identified in a former industrial area located at the beginning of the *Stupinigi* park.

The urban policies for the peri-urban agriculture aims to safeguard the production areas and to enhance green areas along the ring road. These policies are in synergy with the Torino metropolitan master plan. Meaningful is the focus on productive areas inside the city where are supported local direct selling activities (in Italy called *Km0*) with a growing focus on biological agriculture

Urban agriculture is supported by allocating to citizens areas including basic services mainly along the axis of the river, having an important social function but especially an economic role for food supply at the household level.

These arguments highlights how urban and periurban agriculture policies promoting environmental, social and, also, economic benefits, as it should be considered not only – as we stated – the household benefits of urban gardens, but it should be emphasized as most businesses farms located in the South East produces and sells directly agricultural products with consequents benefits for the local economy .

We have to consider the danger of food contamination due to proximity with urban areas. This is often one of the main opposition to urban agriculture that needs to be properly addressed with appropriate measures of monitoring by the public health authorities.

#### 4. Conclusions

What relationships bind the case of Nichelino with the two initial questions of these notes: how the urban and suburban agriculture can be considered a source of agricultural supply for the city and how do they influences the local economy.

Results show that the preservation of these soils used for rural activities it is important not only for environmental reasons - as appropriately underlined by the provincial and regional plans (and also in the Italian scientifically debate about urban agriculture) - but as they encourage significant business operations in terms of agricultural production, socio-environmental items and local economy.

What the urban master plan (in Italian *Piano regolatore generale comunale*) can do to enhance these resources?

At present the master plan, as well as conceived today and reported only to the city boundaries, does not seem to have great leeway. It would be rather useful to consider the issue of rural development as a structural element of the area in order to enhance the economic potential with an intermunicipal structural planning. For example a plan that includes more cities in a single structural plan for large areas might be the tool to enhance the urban transport systems and the regional connections in order to network among themselves the various Savoy residences and harness their potential, as for instance, the potential due to the rural farms inside the parks.

In the case of touristic and cultural issues as said would be interesting to strengthen the network and related services between tourist areas and, therefore, promoting the attractiveness of rural potential through cultural rather than market-oriented policies with the so-called *Slow Food* network that for a few years has been getting good results as a tourist attraction.

This topic can be traced back to the recent reform of urban and regional planning, considering the inclusion of the agricultural issue between the structural parameters of a possible structural plan of the metropolitan area. The problem is therefore more topical than ever and can not be managed only in terms of protecting the rural landscape, but also, and perhaps above all, to improve the rural

heritage located in the interstices and margins of the city, as in the case of the city of Nichelino. The objective of a structural design for large areas goes however beyond the single issue of urbanism and directly calls into question the role of institutions and relationships between regional institutions and municipalities. It is undoubtedly a key issue that, in addition to plans, programs require effective implementation strategies in which urban and periurban agriculture can be part of meaningful planning policy program supported by technical planning tools appropriate to carry out the provisions of the strategic plan for the metropolitan area.

A further consideration concerns the possibility of converting into rural areas the brownfields and the former public spaces no longer in use. Nichelino, as most of cities of Turin metropolitan area, has several abandoned industrial areas. One in particular is a major problem both for its large size and for its proximity to the urbanized area. In this regard there are two difficulties. The first consist in verifying the status of land after that the area will be reclaimed, because industries may have polluted areas where they stood and, consequently, this areas needs priority actions for soils recovery. The second difficulty is related to the economic interests of private subjects who will inevitably be involved in the area reclaimed activities. However, other areas, although smaller, can be detected by the city and turned into rural areas, or in areas of service for support to activities related to the rural sector (markets etc). Similar reasoning is valid for any public areas that are no longer used and can be transformed into urban and rural areas. In these instances it becomes significant the role of the municipal development plan and of the possible relationships between public and private entities considering urban agriculture (and services associated such as local markets etc) among the possible land use destination for soils that are released following the sale and end of productive assets rather than of public services areas no longer in use.

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